B. In the Claims

Please cancel claims 1 to 38 without prejudice.

Following is the status of the claims:

Claims 1-38 (cancelled)

39. (previously presented) A method for isolating DNA from an agarose gel sample containing said DNA, which method comprises:

a) forming a gel-dissolving reaction admixture by admixing said sample with a aqueous chaotropic salt solution, said solution containing a chaotropic salt at a concentration of at least 3 molar;

b) maintaining said gel-dissolving reaction admixture at a temperature of about 45 to about 65 degrees C for a time period sufficient for said gel sample to dissolve to form a dissolved sample;

c) admixing said dissolved sample with an insoluble silica matrix to form a binding reaction admixture, said insoluble silica matrix comprising particulate glass having a sedimentation time through 100 centimeters (cm) of still water at unit gravity in the range of 6 weeks to 20 minutes;

d) maintaining said binding reaction admixture for a time period sufficient for said DNA present in said sample to bind to said matrix to form a solution containing dissolved agarose and an insoluble DNA-matrix complex;

e) separating said complex from said dissolved agarose to form an isolated complex; and

f) recovering said DNA from said isolated complex to form isolated DNA.

40. (previously presented) The method of claim 39 wherein said sedimentation time is in the range of 6 weeks to 2 hours.

41. (previously presented) The method of claim 39 wherein said sedimentation time is in the range of 1 week to 2 hours.

42. (previously presented) The method of claim 39 wherein said sedimentation time is in the range of 6 weeks to 1 week.

43. (previously presented) The method of claim 39 wherein said separation step or recovering step comprises a partitioning method selected from the group consisting of centrifugation, filtration and gravimetric sedimentation.

44. (previously presented) The method of claim 43 wherein said filtration step comprises using a filter having a pore size that retains the insoluble silica matrix and passes the solution.

45. (previously presented) The method of claim 44 wherein said pore size is 0.1 to 1.0 micrometers.

46. (previously presented) The method of claim 44 wherein said filter is provided in a pressurizable chamber having an inlet before the filter for delivery of the admixture and an outlet after the filter for collecting solutions that pass the filter.

47. (previously presented) The method of claim 44 wherein said filter is provided in a centrifuge tube having an upper chamber above the filter and a lower chamber below the filter for collecting solutions that pass the filter.

48. (previously presented) The method of claim 47 wherein said lower chamber is detachable from the filter to allow removal of the collected solution from the lower chamber.

49. (previously presented) The method of claim 39 wherein said salt solution further contains a buffering agent at a concentration sufficient to provide a buffering capacity corresponding to that which 0.1 to 1 molar tris (hydroxymethyl) aminomethane or 0.1 to 1 molar phosphate ion would provide in said solution and has a pH value in the range of 7 to 8.

50. (previously presented) The method of claim 49 wherein said buffered aqueous salt solution has a pH value in the range of 7.2 to 7.8.

51. (previously presented) The method of claim 39 wherein said salt in said aqueous salt solution is selected from the group consisting of NaI, NaBr, NaCl, KI, KBr, CsCl, GNHCl and GNSCN.

52. (previously presented) The method of claim 39 wherein said salt concentration is in the range of 4 to 6 molar.

53. (previously presented) The method of claim 39 wherein said salt solution is substantially free of cyclohexanediamine tetraacetate.